What is Ozone?

Ozone is a gas that forms in the atmosphere when 3 atoms of oxygen are combined (03). It is not emitted directly into the air, but at ground level is created by a chemical reaction between oxides of nitrogen (NOx), and volatile organic compounds (VOC) in the presence of sunlight. Ozone has the same chemical structure whether it occurs high above the earth or at ground level and can be good or bad, depending on its location in the atmosphere.

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What Causes “Bad” Ozone?

- Motor Vehicle Exhaust
- Industrial Emissions
- Gasoline Vapors
- Chemical Solvents

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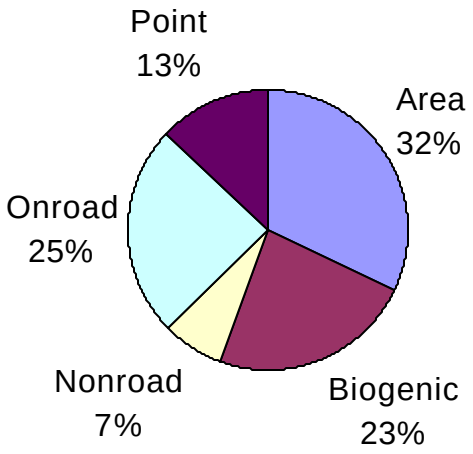
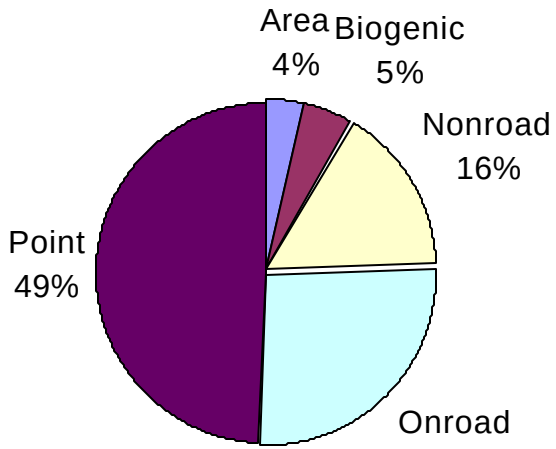
Indiana Emissions by Source Category (1996)

VOC



NOx



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Overview of the Eight-Hour Ozone Standard

- July 17, 1997 - U.S. EPA announced new stricter national ambient air quality standards (NAAQS) for ground-level ozone.
- May 1999 new standards challenged in court.
- Spring 2000 - U.S. EPA released guidance concerning the designation process. States were encouraged to provide recommendations to U.S. EPA by June 30, 2000.
- June 30, 2000 - Indiana's original 8-hour nonattainment assessment was submitted to U.S. EPA.
- February 27, 2001 – U.S. Supreme Court upholds 8-hour ozone standard after designations delayed due to legal challenges.
- November 14, 2002 - U.S. EPA issues memorandum stating that designations will be final by April 2004. States are asked to submit recommendations by April 15, 2003.
- February 27, 2003 - U.S. EPA issues memorandum granting states until July 15, 2003 to submit recommendations.

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Overview of the Eight-Hour Ozone Standard

Layout of U.S. EPA's Proposed Process for Designations

November 14, 2002 U.S. EPA memorandum outlines the schedule for designating areas under the 8-hour ozone (O_3) standard.

- Consistent with Section 107 of the Clean Air Act, U.S. EPA is requesting States to provide designation recommendations to the Regional Administrator by July 15, 2003.
- 2000-2002 monitoring data should be used for devising recommendations. However, U.S. EPA will use the 2001-2003 data for promulgating final designations if the data are available and quality assured.
- Also Per Section 107 of the Clean Air Act, if U.S. EPA intends to modify recommendations made by the Governor, the Administrator must notify the State and provide an opportunity to demonstrate why any proposed modification is inappropriate. Such notification must be given no later than 120 days prior to promulgation of designations.
- Designations will be final by April 15, 2004.

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Overview of the Eight-Hour Ozone Standard

State Implementation Plan and Attainment Deadlines

- States will have until 2007 (three years from the date of designation) to submit State Implementation Plans (SIPs) to U.S. EPA. A SIP outlines the control strategies and technical information to demonstrate how and when the area will achieve attainment of the standard.

- Attainment dates will likely be established based on nonattainment classifications (marginal, moderate, serious, severe, extreme). In Indiana, the attainment dates will likely range from 2007 to 2013.

- U.S. EPA expects to propose rules in Spring 2003 concerning ozone nonattainment classifications, attainment dates, and any mandatory ozone control measures.

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U.S. EPA 8-Hour Schedule

Early 2003	Publish proposed implementation rule
April 2003	States provide designation recommendations
Late 2003	Publish final implementation rule
April 2004	EPA signs final nonattainment designations (effective shortly after*)
April-May 2007	Nonattainment area SIPs submitted to EPA (3 years from effective date)
2007-2021	Range of attainment dates

Harmonization of 8-hr Ozone and PM2.5

- End of 2003—Finalize O3 NAAQS implementation rule
- 2003-2004--propose and finalize PM2.5 implementation rule
- 2004 --Designate nonattainment and attainment areas under 8-hr ozone standard (after receiving recommendations from states). *Note: The statutory deadline for 8-hour ozone designations has passed, and EPA has negotiated settlement agreement on designations.*
- 2004--Designate nonattainment and attainment areas under PM2.5 standard (after receiving recommendations from states)
- 2007--States submit plans for implementing ozone and PM2.5 NAAQS (including state rules for emission reductions)

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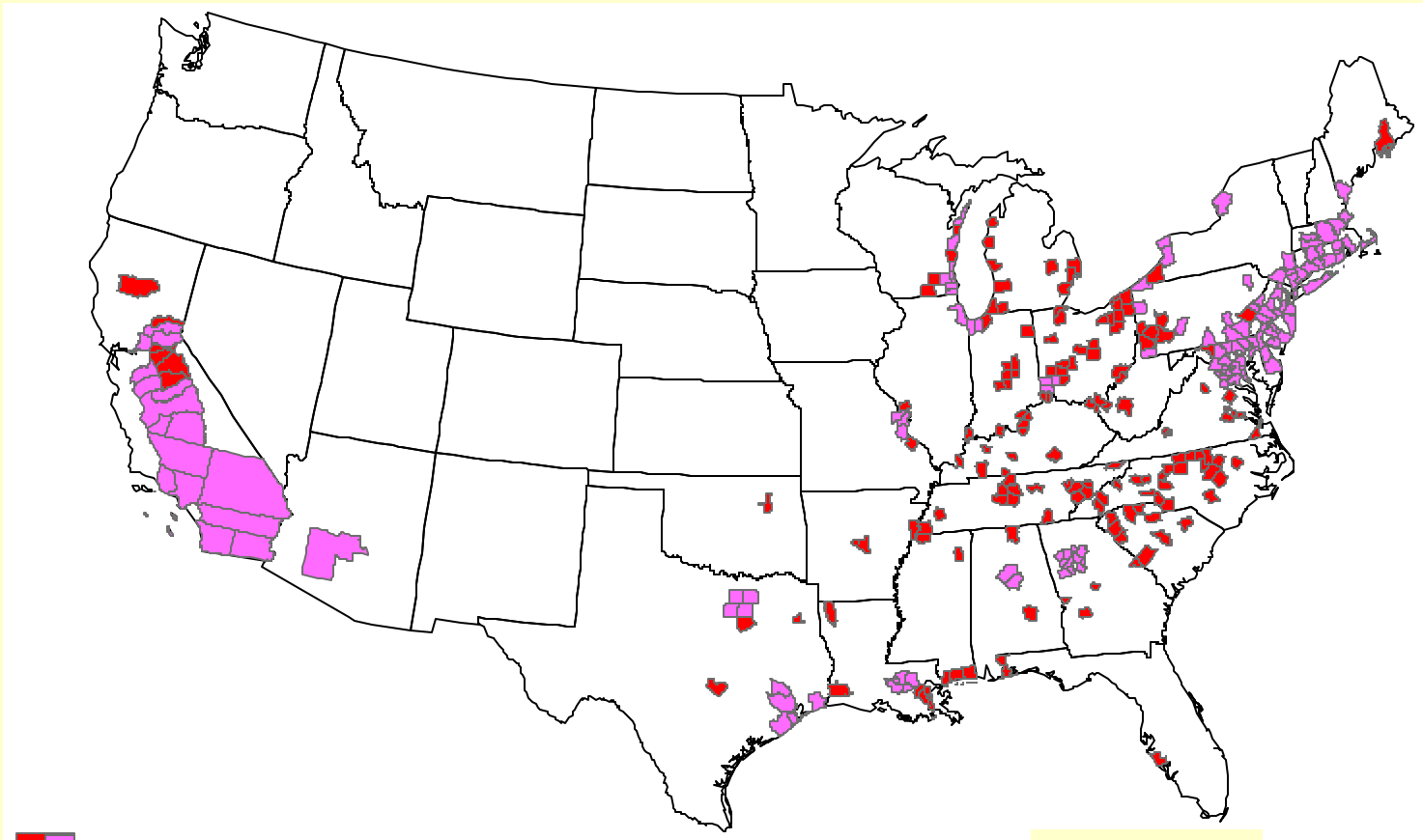
Counties violating the 8-hr ozone NAAQS
1999-2001



There Are a Total of 291 Counties Violating the 8-hour Ozone Standard Using 1999-2001 Data
155 of Those Counties Are Designated Attainment for the 1-hour Standard
136 of Those Counties Are Designated Nonattainment for the 1-hour Standard

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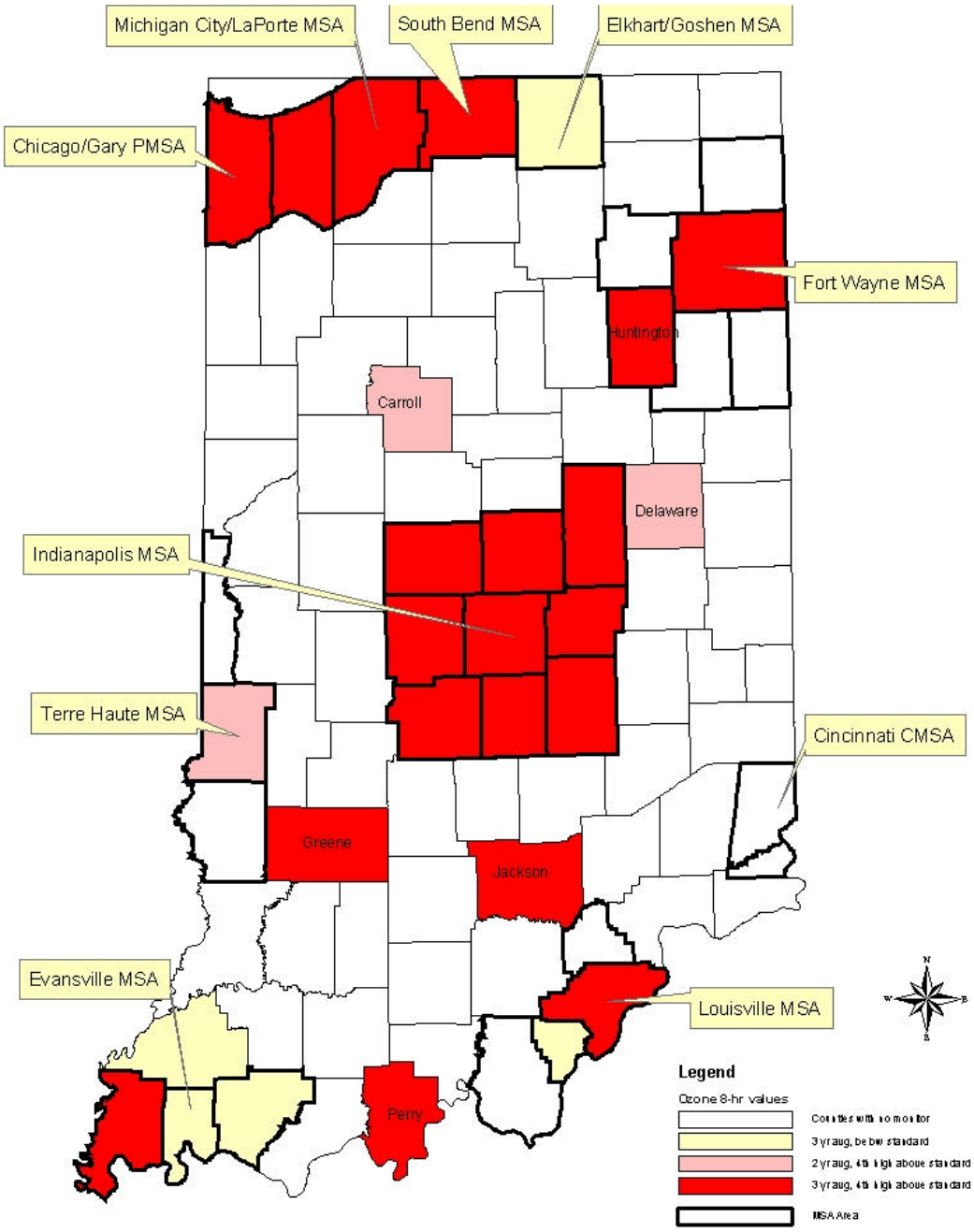
Indiana MSA Boundaries and Counties with O3 Monitors



Indiana Designation Recommendations

Outreach

- IDEM is taking a three-pronged outreach approach to gain input before devising recommendations:
  - Information available through our website, and questions and comments can be shared via an on-line forum. (WEBSITE)
  - Mailing to interested and affected parties in each of the at-risk areas.
  - Presentations/solicitation of comment through public meetings.

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Fort Wayne MSA Monitor Values (2000-2002)

Fort Wayne MSA

Counties within the MSA:

Adams, Allen, DeKalb, Huntington, Wells, and Whitley .

Monitor Values (Average 4th Highest O_3 Value per County, in ppm):

Adams:	No monitors
Allen:	.088
DeKalb:	No monitors
Huntington:	.086
Wells:	No monitors
Whitley:	No monitors

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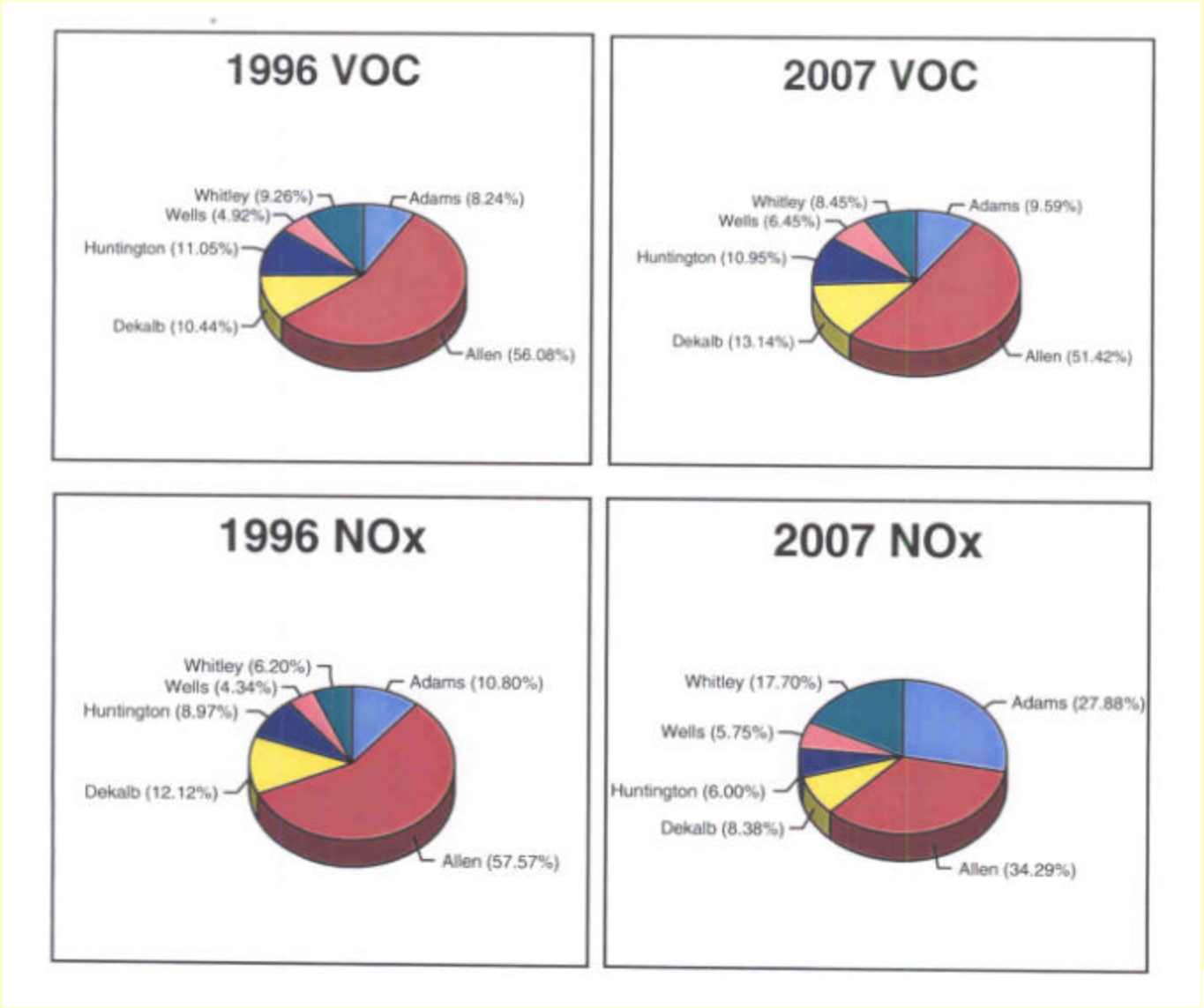
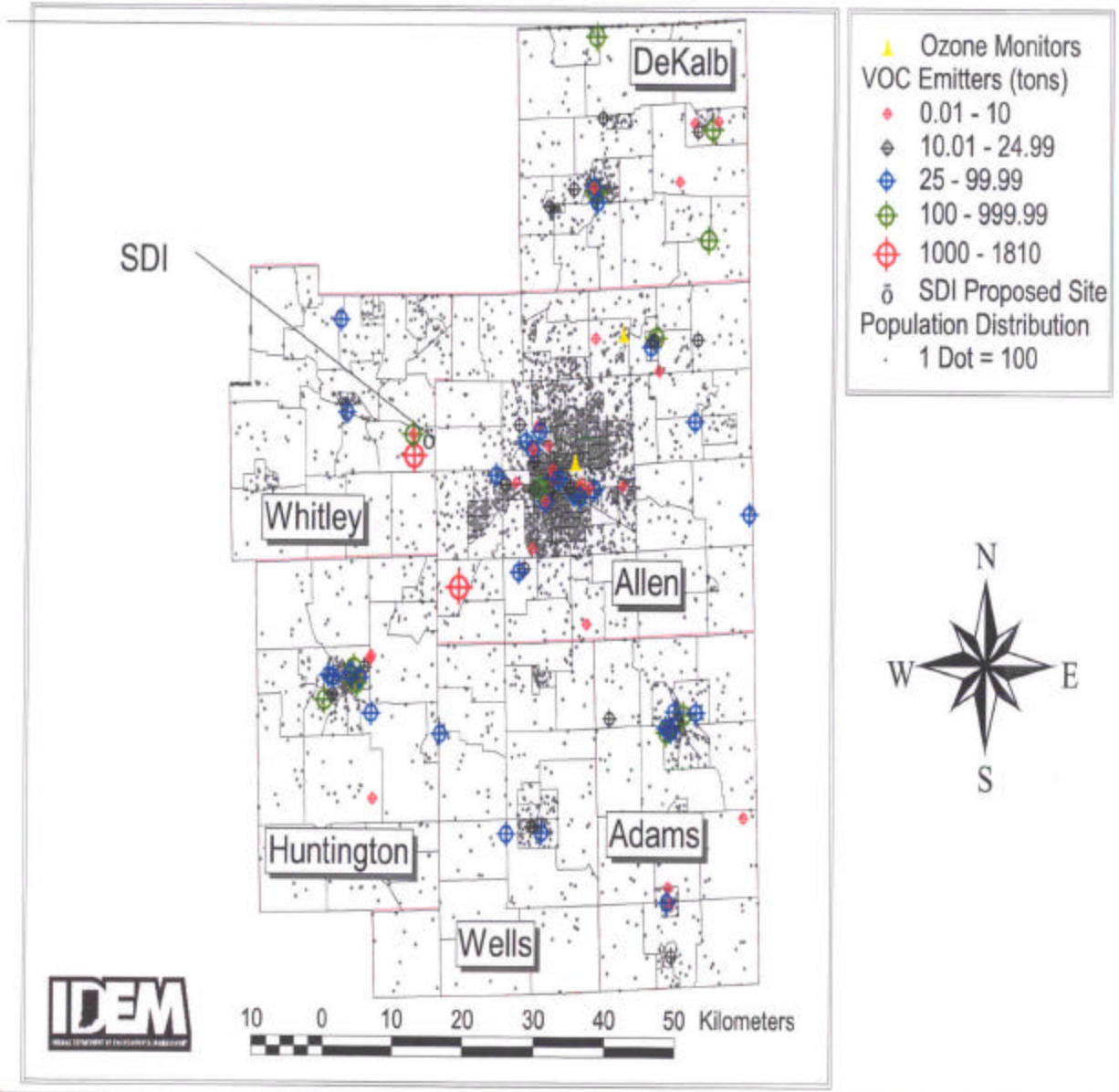
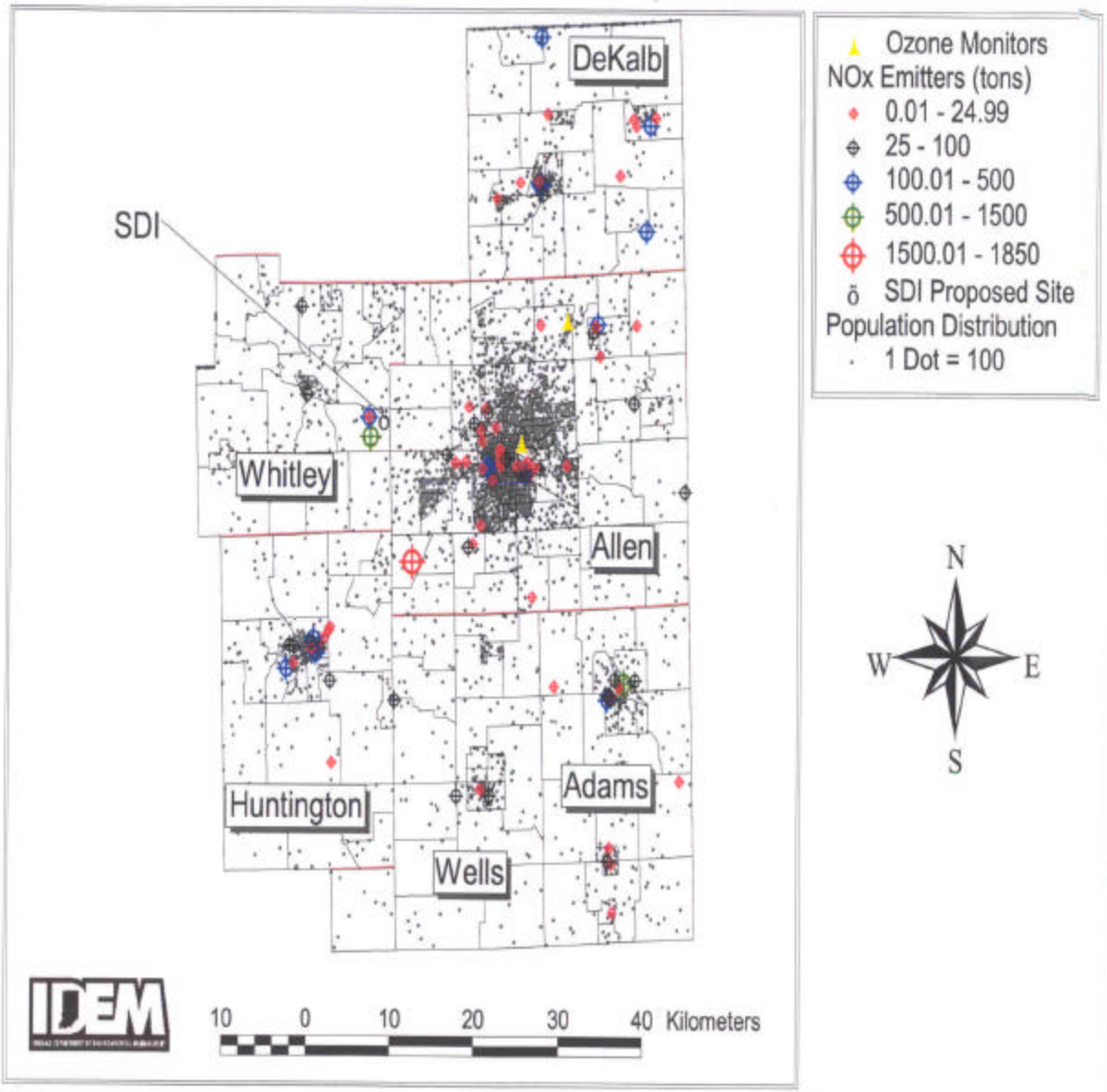
Fort Wayne MSA Emissions By County



Ft. Wayne MSA Population Density and VOC Emitters



Ft. Wayne MSA Population Density and NOx Emitters



Fort Wayne MSA Population Data

	1990	1997	2000	# Change	% Change	2020	# Change	% Change
Adams	31,095	32,837	33,806	969	3%	36,154	2,348	7%
Allen	300,836	312,091	321,245	9,154	3%	343,414	22,169	7%
Dekalb	35,324	38,722	40,766	2,044	5%	45,716	4,950	12%
Huntington	35,427	37,144	38,208	1,064	3%	40,783	2,575	7%
Noble	37,877	41,918	43,771	1,853	4%	48,260	4,489	10%
Wells	25,948	26,773	27,612	839	3%	29,645	2,033	7%
Whitley	27,651	29,969	30,946	977	3%	33,312	2,366	8%

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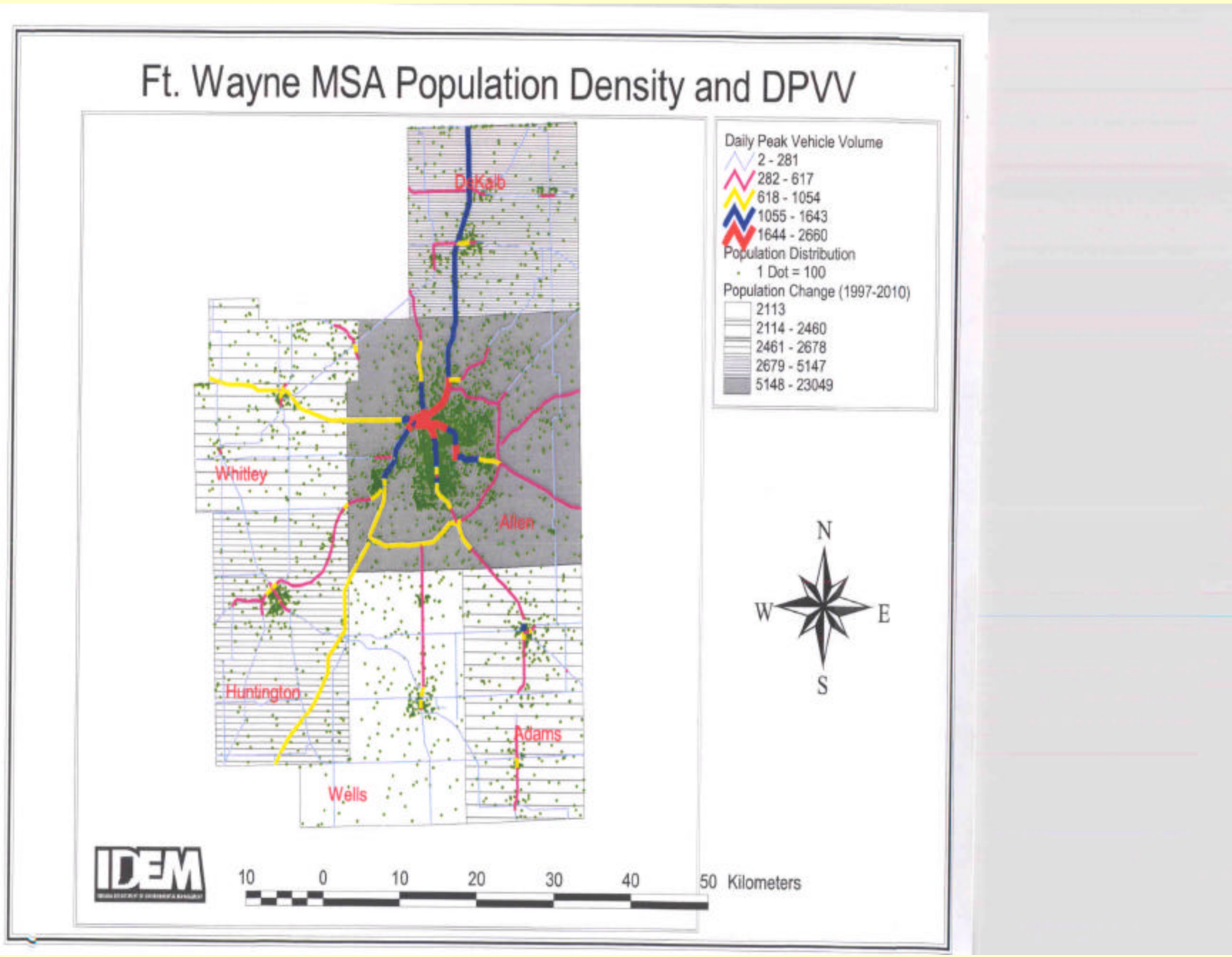
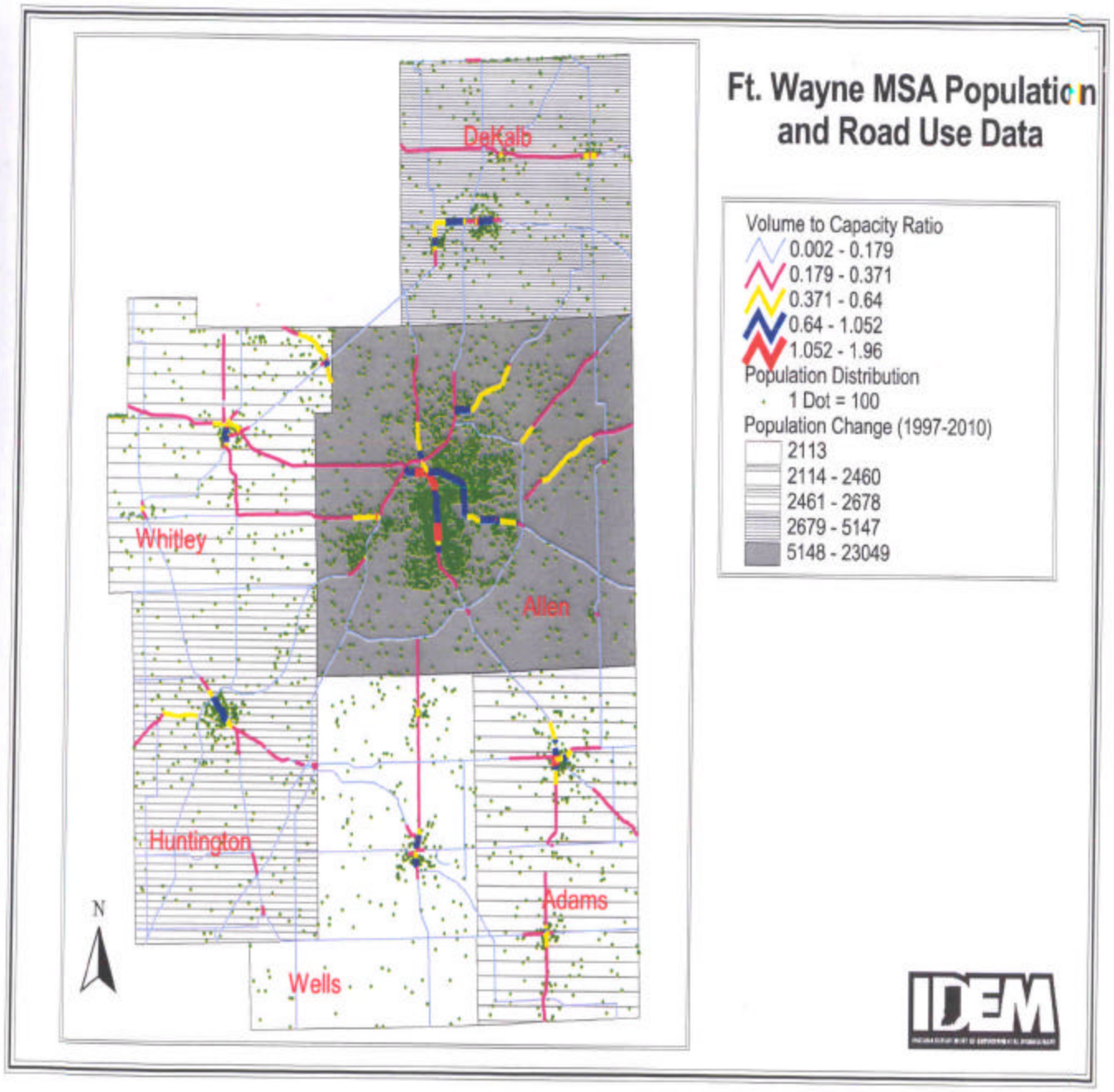
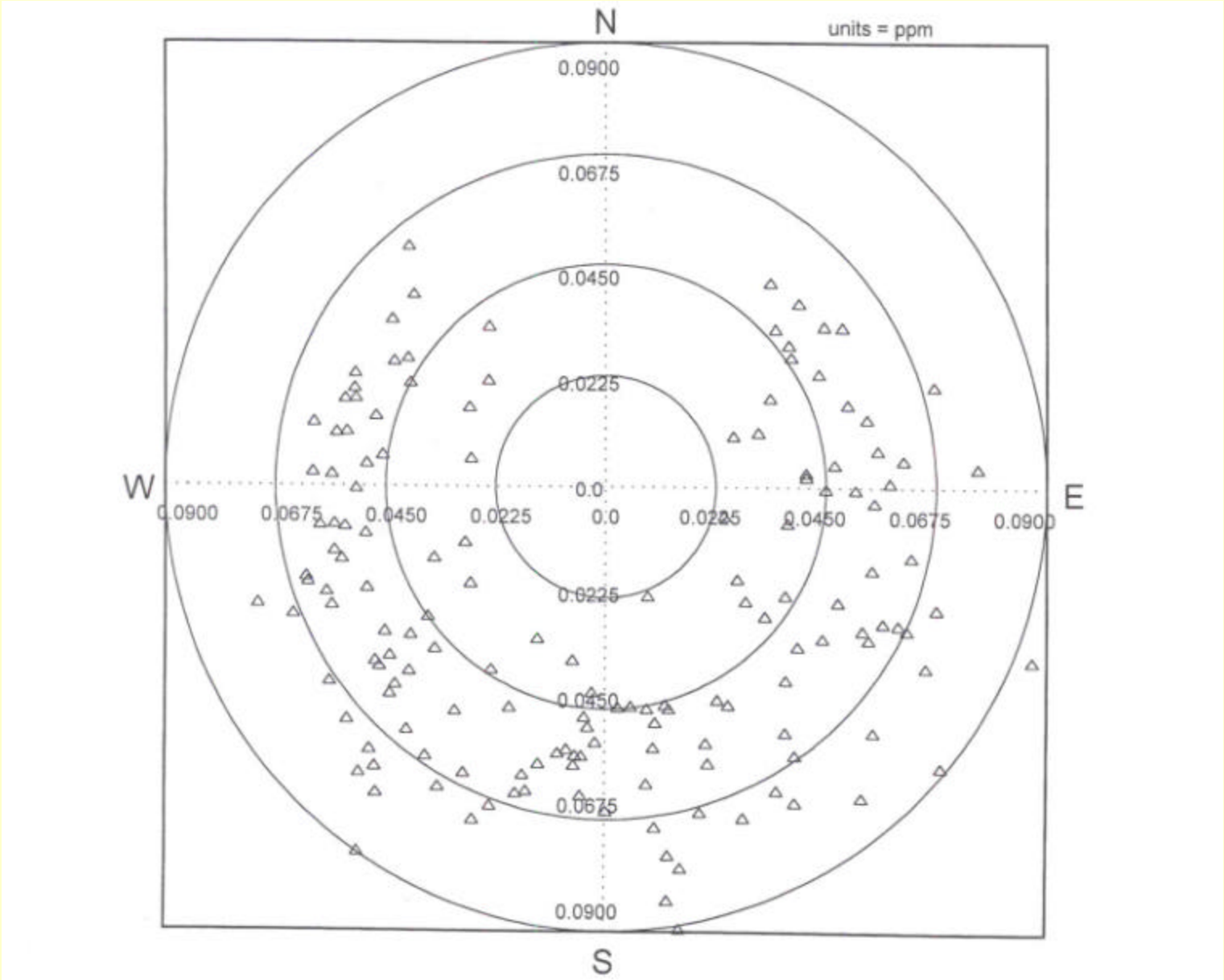
Ft. Wayne MSA Population Density and DPVV




Ft. Wayne MSA Population and Road Use Data
Volume to Capacity Ratio
0.002 - 0.179
0.179 - 0.371
0.371 - 0.64
0.64 - 1.052
1.052 - 1.96
Population Distribution
1 Dot = 100
Population Change (1997-2010)
2113
2114 - 2460
2461 - 2678
2679 - 5147
5148 - 23049
DeKalb
Whitley
Allen
Huntington
Adams
Wells
N
IDEM

Fort Wayne MSA Indiana Meteorology



Conclusions and Next Steps

- Two counties within the MSA have monitor values above the standard.
- MSA boundaries and availability of monitoring data do not correspond.
- Much of the MSA is rural in nature with light population density, moderately-low population growth, minimal traffic congestion, and scattered industry.
- Regional NOx reductions and other controls to be phased in between 2004 and 2006 should bring the area into attainment of the standard by 2007.
- Release of EPA's Implementation Rule and relevance of Transitional Classifications
- IDEM soliciting comment through end of May 2003.